

REMARKS

I. Status of Claims

The Applicants have carefully considered the Office Action dated August 6, 2008, and the references it cites. Currently, claims 1-33 are pending in this application. The Examiner rejects:

- claims 1, 2, 5, 7, 15, 16, 19, and 20 under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,334,003 to Yokota et al. (*Yokota*) in view of U.S. Patent No. 5,465,304 to Cullen et al. (*Cullen*);
- claims 3 and 17 under 35 U.S.C. § 103(a) as being allegedly unpatentable over *Yokota* and *Cullen* and in further view of U.S. Patent No. 6,661,919 to Nicholson et al. (*Nicholson*) and U.S. Patent No. 7,257,273 to Li (*Li*);
- claims 4 and 18 under 35 U.S.C. § 103(a) as being allegedly unpatentable over *Yokota*, *Cullen*, and *Nicholson* and in further view of U.S. patent No. 4,180,798 to Komori et al. (*Komori*); and
- claim 8 as being allegedly unpatentable over *Yokota*, *Cullen*, and *Nicholson* and in further view of U.S. patent No. 4,799,077 to Kaplan et al. (*Kaplan*).

The Office Action also indicated that claims 6, 21, and 22 would be allowable if rewritten in independent form to include the base claim and any intervening claims. Further, the Examiner has allowed claims 9-14 and 23-33.

In response, the Applicants submit the following remarks.

II. Claim Rejections Under 35 U.S.C. § 103(a)

Claim 15 recites a method comprising, *inter alia*, designating an operating mode for document recognition, analyzing pixels of the document image in the document recognition mode, classifying the document image into at least one Character Block (CB) and at least one Background Block (BB) on the basis of a result of the analysis, binarizing pixels of the BB and generating a pre-processed document image, recognizing the pre-processed document image and converting the recognized pre-processed document image into character data, and storing the recognized character data in a storage mode. The Applicants submit that there is no reasonable motivation to combine the cited art and, in addition, *Yokota* specifically teaches away from the alleged combination.

Turning to the cited, *Yokota* describes a data input system for enabling input by writing without using a tablet. The data input system of *Yokota* describes a device that includes a light source and a light sensor. Specifically, “[t]he light source emits light to a character to be recognized, and the light sensor detects the intensity pattern of the light reflected from the character.” *See Yokota at 4:25-28.* The data input system also includes a moving distance sensor that “outputs moving distance data including a direction, in response to movement of the [data input system].” *See Yokota at 4:39-41.* Further, the data input system of *Yokota* also includes an “image character recognition section [that] cuts out a character region from image data, when is [sic] read from the image scanner 12 when the contact sensor 13 keeps outputting the signal indicative of a contact state.” *See Yokota at 4:42-45.* Moreover, “[t]he image character recognition section 15 performs character recognition with respect to the cutout character region.” *See Yokota at 4:45-47.* Stated differently, the data input system such as the input pen of *Yokota* allows selective character recognition of a document by placing the data input system over the document and moving the data input system across the document.

On the other hand, *Cullen* is directed to a system that describes “segmenting a document into text, image and lines[.]” *See Cullen at 4:21-22.* To detect text from the entire document, *Cullen* describes that “it distinguishes areas on a document which are text, [sic] from those which are image (or non-text).” *See Cullen at 4:62-64.* In other words, *Cullen* is directed to a method of performing character recognition of an entire document.

Based on the foregoing, the Applicants submit that there is no reasonable motivation to combine *Yokota* with *Cullen*. In rejecting claim 15, the Examiner contends that it would be obvious to combine the *Yokota* and *Cullen* to convert image character data to binary data to reduce the amount of information required to store image characters. However, *Yokota* already describes converting image character data to binary data. Accordingly, a person having ordinary skill in the art would have no reason to combine the teachings of *Cullen* with the teachings of *Yokota* for the reason the Examiner suggests because *Yokota* already performs the functions that the Examiner alleges would be obvious to include from the disclosure of *Cullen*. Accordingly, there is no reasonable motivation to combine the teachings of *Yokota* with the teachings of *Cullen*.

The Applicants note that the only reason the Examiner relies upon *Cullen* is to allege the combination describes analyzing pixels of the document image in the document

recognition mode and classifying the document image into at least one Character Block (CB) and at least one Background Block (BB) on the basis of a result of the analysis. As noted above, *Cullen* discloses a document segmentation to identify the contents of the entire document. However, *Yokota* describes a device that allows selective character recognition of a document by placing the data input system over the document and moving the data input system across the document. Thus, there would be no reason to combine *Cullen* with the teachings of *Yokota* because the device disclosed in *Yokota* would have no need to distinguish the different parts of the document because an operator would select only the relevant portions of a document. Accordingly, *Yokota* specifically teaches away from the alleged combination.

Further, none of the cited art cure at least the above-noted deficiencies of *Yokota* and *Cullen*. Thus, for at least the foregoing reasons, claim 15 and all claims depending therefrom would not have been obvious from any reasonable combination of *Yokota* and *Cullen*. Further, claim 1 and all claims depending therefrom are patentable over the cited references for at least substantially the same reasons discussed above in connection with claim 15.

III. Conclusion

The Applicants submit that the above amendments and arguments are fully responsive to the Office Action dated August 6, 2008. Further, the Applicants submit that, for at least the foregoing reasons, all pending claims are in condition for allowance and notice to that effect is requested. Should the Examiner have any questions, the Examiner is encouraged to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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